

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) An optical receptacle comprising:

a precision sleeve;

a stub provided with an optical fiber, said stub being fixed only to an inner hole of the precision sleeve, ^{and} said stub being fixed to one end of said an inner hole of the precision sleeve through an adhesive; and

a sleeve holder fixed to an outer periphery of the precision sleeve by press-fitting or through an adhesive, wherein

at least one of an outer periphery of the stub and the inner hole of the precision sleeve has ~~have~~ a surface roughness Ra value of 0.1 μm or more and 0.5 μm or less.

Claim 2 (Original) An optical receptacle according to claim 1, wherein the outer periphery of the stub with an optical fiber and/or the inner hole of the precision sleeve has a surface roughness Ra value of more than 0.2 μm and a surface roughness Ry value of 4.0 μm or less, and a difference between an average line and a peak line of surface roughness is 2.0 μm or less.

Claim 3 (Previously Presented) An optical receptacle according to claim 1, wherein a core of the optical fiber has a concentricity of 0.5 μm or less with respect to the outer periphery of the stub with an optical fiber.

Claim 4 (Previously Presented) An optical receptacle according to claim 1, wherein the inner hole of the precision sleeve has a larger inner diameter by 0 to 1.5 μm than an outer diameter of an optical fiber connector ferrule.

Claim 5 (Previously Presented) An optical receptacle according to claim 1, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 6 (Previously Presented) An optical receptacle according to claim 1, wherein the precision sleeve is formed of glass or crystallized glass.

Claim 7 (Previously Presented) An optical receptacle according to claim 5, wherein the crystallized glass has a crystal grain size of $0.1\ \mu\text{m}$ to $1.0\ \mu\text{m}$, and the crystallized glass contains crystals in an amount of 30 to 70 mass%.

Claim 8 (Previously Presented) An optical receptacle according to claim 1, wherein the adhesive contains 10 vol% or more of fillers having a maximum particle size of $0.5\ \mu\text{m}$ or less and an average particle size of $0.3\ \mu\text{m}$ or less.

Claim 9 (Previously Presented) An optical receptacle according to claim 2, wherein a core of the optical fiber has a concentricity of $0.5\ \mu\text{m}$ or less with respect to the outer periphery of the stub with an optical fiber.

Claim 10 (Previously Presented) An optical receptacle according to claim 2, wherein the inner hole of the precision sleeve has a larger inner diameter by 0 to $1.5\ \mu\text{m}$ than an outer diameter of an optical fiber connector ferrule.

Claim 11 (Previously Presented) An optical receptacle according to claim 3, wherein the inner hole of the precision sleeve has a larger inner diameter by 0 to $1.5\ \mu\text{m}$ than an outer diameter of an optical fiber connector ferrule.

Claim 12 (Previously Presented) An optical receptacle according to claim 9, wherein the inner hole of the precision sleeve has a larger inner diameter by 0 to $1.5\ \mu\text{m}$ than an outer diameter of an optical fiber connector ferrule.

Claim 13 (Previously Presented) An optical receptacle according to claim 2, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 14 (Previously Presented) An optical receptacle according to claim 3, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 15 (Previously Presented) An optical receptacle according to claim 9, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 16 (Previously Presented) An optical receptacle according to claim 4, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 17 (Previously Presented) An optical receptacle according to claim 11, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 18 (Previously Presented) An optical receptacle according to claim 12, wherein a capillary of the stub with an optical fiber is formed of crystallized glass.

Claim 19 (Previously Presented) An optical receptacle according to claim 2, wherein the precision sleeve is formed of glass or crystallized glass.

Claim 20 (Previously Presented) An optical receptacle according to claim 3, wherein the precision sleeve is formed of glass or crystallized glass.